SUMMARY STATEMENT
CDC Funding Opportunity Announcement CI10-1007ARRA10
American Recovery and Reinvestment Act (ARRA)
EPIDEMIOLOGY AND LABORATORY CAPACITY FOR INFECTIOUS DISEASES (ELC)
Health Information Technology – Infrastructure and Interoperability Support for Public Health Laboratories
Cooperative Agreement

Date of Review: June 29, 2010   Recommendation: Approve
Applicant Name: Massachusetts Department of Public Health   Score: 89
Principal Investigator: Alfred DeMaria
Amount Requested: $1,069,388

SUMMARY OF PROPOSAL

The Massachusetts Department of Public Health (MDPH) has already created a number of interconnected systems for the compilation and exchange of lab data across 32 hospitals, state and federal agencies and other partners. This proposal will expand current functionality, facilitating the achievement of Meaningful Use by clinicians in the acute care settings.

MDPH currently has the infrastructure to receive electronic submission of notifiable laboratory results and would like to expand the number of participating sites to cover all hospital laboratories in Massachusetts as well as the larger national commercial laboratories. BLS will integrate remaining laboratory components into the LIMS. The components include reference bacteriology, viral serology and childhood lead screening. All of these deployments will include sending reportable laboratory results using the existing IT infrastructure to BID for certification and to the CDC. BLS will also expand HL7 electronic ordering and reporting capacity to include all tests performed at BLS. The current system is in place only for TB testing.

Over the course of this cooperative agreement, staff will:
- Continue to facilitate implementation of ELR by national and local laboratories.
- Provide quality assurance of notifiable disease data sent by laboratories.
- Promote the use of the existing ELR infrastructure to support data sent from ehrs.
- Integrate the remaining laboratory components in LIMS infrastructure.
- Facilitate implementation of ELR at new BLS laboratory information systems are deployed.
- Expand the HL7 electronic order and result functionality to all clinical tests performed by BLS and work with two funded hospitals to implement HL7 electronic ordering and resulting.

CRITERIA

1. Background, Understanding, and Need

Summary of Strengths:
- Applicant is strategically positioned to further build upon their existing IT infrastructure and interoperable data exchange capacity. They are not starting from scratch with this proposal; yet

they would like to enhance and expand their electronic exchange of lab orders and test results.

- Clear foundation of knowledge in which to expand capacity.
- There are a total of 79 hospital laboratories in Massachusetts and due to a new Massachusetts revised regulation governing laboratory reporting, labs are now required to require the use of the ELR infrastructure for reporting notifiable conditions. While this has led to an increase in the number of participating sites laboratories frequently cite a lack of resources as a reason for non-compliance. Currently 32 hospitals and one commercial laboratory are certified to transmit laboratory data via ELR and have discontinued paper and fax reporting or legacy systems. The BLS has also been certified to report influenza, TB, Quantiferon, pertussis, and the enteric diseases.

Summary of Weaknesses:

- Applicant has not clearly stated what gaps exist in terms of functionality.

2. Demonstrated Relevant Previous Experience and Current Capacity

Summary of Strengths:

- Applicant is active PHILP participant, and has had system in place since 2009. As of April 2010, 26 hospitals submit data electronically using HL7, LONIC and SNOMED. This proposal will help them expand their efforts by bringing on-board more resources & expertise.
- Applicant has demonstrated very strong experience and current capacity, including a thorough understanding of APHL's criteria for LIMS functionality, LOINC coding, HL7 as well as the challenges to the exchange of lab data.
- Multiple facilities on board.

Summary of Weaknesses:
None listed.

3. Operational Plan

Summary of Strengths:

- Applicant has solid plan this is divided into phases. From past pilots, the applicant is using that experience to develop comprehensive plan which includes sustainability strategy.
- The operational plan is detailed and includes project staff, partners, and project collaborators.
- Very good description of all activities.

Summary of Weaknesses:

- Sustainability plan is lacking in specifics.
- Sustainability plan is not well articulated and based on the presumption of cost-savings and improved efficiency
- Timelines for achieving stated milestones are not always well defined

4. Partnerships

Summary of Strengths:

- Applicant has put together a robust consortium to work together on this project: Bureau of Lab Sciences; Bureau of Infectious Diseases; local state and federal partners; clinical labs; and clinical care sites.
- Applicant has some very strong partners, including Children's Hospital of Boston, and other hospitals

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Summary of Weaknesses:
- Plan could have more specifics about additional partners and how they will be contributing on this project.

5. Personnel

Summary of Strengths:
- Staff are well qualified and their roles on project were clearly defined in proposal.
- Staff have requisite experience and education and are well-positioned to oversee and manage this project to success. Roles appear to be defined with appropriate requirements for education and experience.

Summary of Weaknesses:
- Contractors still yet to be identified.

6. Evaluation Plan

Summary of Strengths:
- Very good performance measures and effectiveness measures have been defined for each of the major activities on the project.
- Very strong evaluation plan with quantifiable measures of success. Excellent details on testing, evaluation, feedback and related methods of determining success and mitigating risk.

Summary of Weaknesses:
- None listed.

7. Budget (not scored)

Summary of Strengths:
- Budget appears appropriate and detailed. Applicant appears to be capable of managing and tracking ARRA funding.
- Straight-forward budget request for software, personnel and contract staff.
- Ambitious project goal to implement the entire State and budget it appropriate for scope and well defined.

Summary of Weaknesses:
- Budget is well in excess of state ceiling and would deprive resources from other qualified jurisdictions in need.
- Contractor must be estimated because contractor has not yet been selected. .

GENERAL COMMENTS
- Applicant has performed in small pilots standardized lab data exchange. Plans to use funds from the proposal to help carry-out existing plans, and build upon existing infrastructure.
- Very strong proposal that builds upon the MAVEN system and uses HL 7 for orders and results. Applicant has achieved a great amount of exchange of lab data throughout Massachusetts and seems well-positioned to leverage this existing functionality.
- Well-crafted and complete proposal of sufficient detail.

RECOMMENDATIONS
None listed.